

## **Evaluation of the Implementation of an Electronic Medical Record.**

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**Summary:** University of Minnesota Physicians, the faculty clinical practice organization of the Medical School, is implementing an Electronic Medical Record (EMR). During this process, we anticipated the need for an evaluative study of the implementation to examine process and satisfaction. This was in order to monitor the ability of the physicians to use the EMR effectively. The use of these data to evaluate the implementation and user-acceptance of change of process presents a unique research opportunity. The study of the impact of the EMR implementation on patient care, education, and other issues of academic interest make this research study valuable.

**Research focus:** We hypothesize that the changes necessary to implement the EMR will initially result in high levels of dissatisfaction, but gradual acquisition of the skills required to use the EMR effectively will be reflected in time by increased user satisfaction, greater efficiency, and cost-savings. In addition, there will be an increase in the access to clinical information for physicians. We have obtained an anonymous web-based survey from faculty physicians who are using the EMR. The first survey was answered by 106 out of the 440 physicians who come under the umbrella of the UMP clinics in the time period 6/13/2002-7/27/2002. The EMR system was first implemented in the month of December 2001.

**Methods:** The questionnaires asked the physicians about their experiences using the EMR as well as the changes they would like to see implemented. The multiple choice questions constituting the quantitative data are being analyzed separately from the qualitative parts of the questionnaire. Sequential surveys will be carried out to examine the changes in satisfaction levels as physicians become more comfortable with EMR usage and changes suggested by the physicians are implemented in the EMR.

**Preliminary Results:** A satisfaction percentage score calculated from the preliminary quantitative analysis shows that there is a mean satisfaction level of 54.4% with a standard deviation of 14.5. These results are from the surveys answered in the first phase which had a response rate of 24%. Two more surveys are to be carried out to evaluate the impact of quality improvement procedures in the EMR implementation.

### **References:**

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